

REMARKS

Status of the Claims

Claims 1-16 and 18-33 are pending. Claims 3 and 17 were previously canceled. Claims 15-16, 18-19, and 29-33 are withdrawn as directed to a nonelected invention. Claims 1, 2, 4-14 and 20-28 are under consideration.

Rejection Under 35 U.S.C. 103(a)

Claims 1, 2, 4-14 and 20-28 are rejected as allegedly obvious over Cade 2004 (US-A-2004/0154051) in view of Sato and Cade 2000 (US Patent 6,706,952). The rejection is respectfully traversed.

Sato is cited as disclosing a genomic sequence of *Arabidopsis thaliana* that comprises the sequence of instant SEQ ID NO:2. Cade 2004 is cited as disclosing a salicylic acid-induced promoter comprising nucleotides 290-1226 of instant SEQ ID NO:2, as well as a construct in which this promoter is operably linked to a chimeric gene. Cade 2000 is cited as teaching a 5' untranslated sequence of the NI16 gene comprising a salicylic acid responsive element and comprising nucleotides 390-1225 of instant SEQ ID NO:2. Cade 2000 also is alleged to teach induction of NI16 expression by salicylic acid.

Applicant notes that none of the above prior art documents teaches or suggests a nucleic acid containing at least a first nucleotide sequence containing SEQ ID NO:2 that is operably linked to a second nucleotide sequence containing a transgene to be expressed, as recited in present claim 1. For example, none of the references teaches or suggests a promoter sequence including

nucleotides 1-289 of SEQ ID NO:2, or a promoter comprising the entirety of SEQ ID NO:2.

Further, it should be noted that none of the cited prior art documents, taken either alone or in any combination, teaches or suggests the properties of the claimed subject matter of the present application. In particular, the nucleic acid of the present invention allows the selective and inducible expression of a transgene in a suitable host, e.g. a transgenic plant, with unexpectedly high selectivity. Example 3 showed a 5-fold induction of a transgene in a transgenic plant using a promoter according to the present claims. Moreover, no hint is given in any of the above prior art documents that the promoter contained in SEQ ID NO:2 is not only inducible by exogenous substances, but is also a very tight promoter, i.e. is characterized by a surprisingly low leakiness when no inducing agent is present. See, e.g., Example 5, which shows that a promoter according to the present claims was considerably less leaky than the PR-1a control. This is a significant advantage since it allows for a very precise control of the expression of a transgene. Using the nucleic acid of the present invention, transgenic plants can be grown to a size sufficient to obtain enough plant material, and expression of a transgene can then be selectively induced, resulting in the production of the desired product, e.g. a polypeptide, a protein or a RNA molecule.

There is no teaching or suggestion given in any of the above cited prior art documents of the fact that a nucleic acid containing at least a first nucleotide sequence containing SEQ ID NO:2 and a second nucleotide sequence containing a transgene has the above superior properties regarding the expression of the

transgene. Moreover, the use of SEQ ID NO:2 as a promoter for expression of a transgene is not even mentioned in any of the cited prior art documents, let alone the fact that this promoter is characterized by a surprisingly low leakiness.

Therefore, a person skilled in the art having knowledge of Cade 2004, Sato, and Cade 2000 would not have arrived at the claimed subject matter of the present application without inventive effort. There was no suggestion in the cited references of using a promoter comprising SEQ ID NO:2 to control the expression of a transgene; only portions of SEQ ID NO:2 had been found to have promoter activity. Finally, the combined references do not suggest in any way that by adding further 5' sequences to the promoter of Cade 2000 or Cade 2004 a salicylic acid-inducible promoter with superior selectivity and tight regulation of transgene expression would result. Thus, there would have been no motivation to extend the Cade promoter sequences to encompass the present claims, or to select out from the genomic sequence of Sato the presently claimed SEQ ID NO:2.

In summary, the subject matter of present claims 1, 2, 4 to 14, and 20 to 28 is not obvious in view of Cade 2004, Sato, and Cade 2000, because the references taken either alone or in any combination fail to disclose or suggest a salicylic acid-inducible promoter comprising SEQ ID NO:2. The withdrawal of this rejection is respectfully requested.

Application No. 10/566,201
Filed: January 27, 2006
TC Art Unit: 1638
Confirmation No.: 8282

The Examiner is encouraged to telephone the undersigned attorney to discuss any matter that would expedite allowance of the present application.

Respectfully submitted,

ARTUR PFITZNER ET AL.

Dated: December 24, 2008

By: Charles L. Gagnebin III/
Charles L. Gagnebin III
Registration No. 25,467
Attorney for Applicant(s)

WEINGARTEN, SCHURGIN,
GAGNEBIN & LEOVICI LLP
Ten Post Office Square
Boston, MA 02109
Telephone: (617) 542-2290
Telecopier: (617) 451-0313

CLG:LJH/mrb

375648.1